

Abstract of the Disclosure

A bioreactor and a method for growing engineered tissue provide facing surfaces in a vessel for containing cell-culture media. The facing surfaces are equidistant and define a gap therebetween while providing substrates for cell tissue growth. By 5 maintaining conditions within the vessel conducive to cell tissue growth and moving the surfaces relative to one another within such cell culture media, tissue growing thereupon is subjected to physiological flow and shear stress, preferably through the use of oscillating motion, and engineered tissue is produced.